Listing of the Claims:

Claim 1 (previously presented): A method for reducing artifacts in ultrasound imaging of anatomical tissue, comprising the steps of:

a) receiving at least two reference signals of imaging ultrasound waves that have been reflected from different regions in the anatomical tissue, wherein a transducer is moved such that the reference signals are reflected from different regions;

b) deriving a correction signal from the reference signals;

c) subtracting the correction signal from a signal of an imaging ultrasound wave to derive a corrected signal; and

d) displaying an image using the corrected signal.

Claim 2 (previously presented): The method of claim 1, wherein the correction signal is derived by averaging of the reference signals.

Claim 3 (previously presented): The method of claim 2, wherein the correction signal is derived by weighted averaging of the reference signals.

Claim 4 (previously presented): The method of claim 3, wherein the weighted average assigns a higher weight to the reference signals that are not correlated to a prior reference signal.

Claim 5 (original): The method of claim 1, further including the step of displaying an image using the uncorrected signal.

Claim 6 (original): The method of claim 1, wherein the artifacts to be reduced are caused by main bang and ringdown signals.

Claim 7 (original): The method of claim 1, wherein the artifacts to be reduced are caused by acoustic reflection from an intervening structure.

Claim 8 (previously presented): The method of claim 1, wherein:

a) the correction signal is updated by receiving at least one additional reference signal and averaging the additional reference signal and the reference signals previously received;

b) the updated correction signal is subtracted from a signal of an imaging ultrasound wave to derive an updated corrected signal; and

c) an image is displayed using the updated corrected signal.

Claims 9-11 (canceled)

Claim 12 (previously presented): The method of claim 1, wherein the step of receiving the reference signals is conducted using at least ten reference signals.

Claim 13 (previously presented): The method of claim 1, wherein the correction signal is set to zero from time to time and a new correction signal is obtained by receiving additional reference signals and averaging the additional reference signals to derive a new correction signal, subtracting the new correction signal from a signal of an imaging ultrasound wave to derive a corrected signal and displaying an image using the corrected signal.

Claim 14 (original): The method of claim 13, wherein the correction signal is set to zero at regular intervals.

Claim 15 (original): The method of claim 13, wherein an operator may elect to set the correction signal to zero.

Claim 16 (original): The method of claim 13, wherein the correction signal is set to zero when there is a change in system conditions.

Claim 17 (original): The method of claim 13, wherein the correction signal is set to zero based upon an analysis of the corrected signal.

Claim 18 (original): The method of claim 13, wherein the correction signal is set to zero based at least in part upon an average amplitude of at least a portion of the corrected signal.

Claim 19 (original): The method of claim 13, wherein the correction signal is set to zero when there is a change in temperature of a transducer.

Claim 20 (original): The method of claim 1, further including the step of displaying an image using the correction signal.

Claim 21 (previously presented): A method for reducing artifacts in ultrasound imaging of anatomical tissue, comprising the steps of:

a) receiving at least two reference signals of imaging ultrasound waves that have been reflected from different regions in the anatomical tissue;

b) deriving a correction signal by weighted averaging of the reference signals, where the weighted average assigns a higher weight to reference signals that are not correlated to a prior reference signal;

c) subtracting the correction signal from a signal of an imaging ultrasound wave to derive a corrected signal;

d) displaying an image using the corrected signal;

e) updating the correction signal by receiving at least one additional reference signal and averaging the additional reference signal and the reference signals previously received;

f) subtracting the updated correction signal from a signal of an imaging ultrasound wave to derive an updated corrected signal; and

g) displaying an image using the updated corrected signal.

Claim 22 (original): The method of claim 21, further including the step of displaying an image using the uncorrected signal.

Claim 23 (original): The method of claim 21, further including the step of displaying an image using the correction signal.

Claim 24 (previously presented): The method of claim 21, wherein the correction signal is set to zero from time to time and a new correction signal is obtained by receiving additional reference signals and averaging the additional reference signals to derive a new correction signal, subtracting the new correction signal from a signal of an imaging ultrasound wave to derive a corrected signal and displaying an image using the corrected signal.